Environmental Assessment

Environmental Assessment (EA) Number: OR-056-00-095
Title: Sanford Creek Vehicle Management and Roads Rehabilitation
Serial Number or Project Number: 73-7176
Bureau of Land Management (BLM) Office: Prineville
Resource Area: Deschutes

I. Purpose and Need

The purpose is to reduce soil erosion, improve water quality, improve stream channel and riparian vegetative conditions, improve wildlife habitat, and reduce disturbance to wildlife. As stated in the Upper Prineville Reservoir Activity Plan EA (EA No. OR-056-2-010), objectives for the area are to decrease erosion and soil loss caused by vehicle traffic on unstable roads and vehicle trails, and to reduce stream peak flows in Sanford Cr. which causes channel bank and bottom erosion and reductions in riparian vegetation. Management direction for riparian and aquatic habitat in the Brothers/La Pine Resource Management Plan (1989) require measures to protect or restore natural functions within riparian areas (pg 98). The Standards for Rangeland Health (1997) requires that the uplands must function properly by capturing and storing moisture, and that riparian areas must be in properly functioning condition to dissipate flood flows. The roads network within Sanford Cr. subwatershed creates an extension of the drainage network, thereby increasing the efficiency at which water can be routed through the subwatershed and to the main channel of Sanford Cr. The result is increased peak flows and sedimentation of Sanford Cr.

In addition, the purpose is to implement the decision outlined in the Brothers/La Pine Resource Management Plan (1989) for off-road vehicle designation. The project area is identified as part of the Prineville Reservoir area limiting off road vehicle use to existing or designated roads or trails, or limiting season of use. Crucial mule deer winter range within the project area has established seasonal use restrictions from Dec. 1 to May 1.

II. Proposed Action and Alternatives

No-Action
Closure, rehabilitation, and maintenance of roads within the Sanford Cr. subwatershed would not occur. Vehicles would continue to travel on all roads within the project area.

Proposed Action
The proposed action is to close and rehabilitate unstable and sediment producing roads, perform maintenance actions on open roads, and reduce the overall miles of roads within the Sanford Cr. subwatershed. One route through the upper subwatersheds would remain open

while closing two other routes through the middle of the subwatersheds.

Roads within the project boundary total approximately 24 miles. Closure of approximately six miles of road would occur by obliterating the first 200 yards of road segment from the access point. There are eight access points as outlined in the proposed action. Obliteration would be accomplished by means of ripping the road, scattering large cobbles on the ripped portion, then seeding and scattering juniper limbs on the surface. Ripping of the road would be accomplished by pulling a ripping blade behind a bulldozer. Juniper limbs would be acquired on site and taken from non-old growth juniper trees (<100 years old). The seed mixture used on the obliterated section would be a mixture of bottlebrush squirreltail, thickspike wheatgrass, bluebunch wheatgrass, and Indian rice grass. Access to the closed portion would be blocked by constructing short segments of fence (each <2000 ft. long) at three locations, and tying the fence into existing juniper stands or topographic features. It is estimated that a total of 3/4 mile of fence would need to be constructed.

The access route remaining open would require approximately 1/4 mile of new road construction to reduce damage to soil and water resource (segment C). The new construction would take place adjacent to the current road location, and the current location would be obliterated. New construction would be done with a bulldozer blade, pushing only larger shrubs and rocks to the side, minimizing soil scarification. The current location travels down the sideslope and up the headwall of a severely erosive ephemeral drainage.

Table 1 displays the specific segments, by alternative, that would be closed, maintained, or constructed (also see Maps A and B):

Table 1. Proposed Actions by Road Segment and Alternative

PREFERRED ALTERNATIVE				ALTERNATIVE A	
Segment	**Length of Closure (miles)**	**Length of Maintenance (miles)**	**Length of New Construct (miles)**	**Length of Closure (miles)**	**Length of Maintenance (miles)**
A	1.7				0.9
B	1.7				
A/B	0.8				0.58
C	0.23		0.25		
D	0.58			0.3	0.3
E	0.38			0.38	
F	0.36			0.36	
G		0.41			0.41
H		4.23			1.6
I		2.08			
J	0.37				
Total Miles	**6.12**	**6.72**	**0.25**	**1.04**	**3.79**

Closure of the above road segments with implementation of the proposed action would result in one public access route through the upper subwatersheds of Deer and Sanford Creeks, and would eliminate the road segment AA@ that crosses Deer Cr. (perennial/interrupted stream) in a relatively constrained valley bottom. Access into the project area would be from Robert=s Bay Road, a county road on the west side of the project area, via the Doubtful Dirt Rd. Signs at Doubtful Dirt Road would alert the public that only one route exists within the area, and that it is

not a Athrough@ road due to private lands located on the east side of the project area. Access through the subwatersheds would occur mainly in the upper tablelands and generally less steep and erosive terrain. The open travel route would traverse segments G, C, and H, and any other routes shown on the map that are not proposed to be closed . The upper tablelands of segment H, currently extremely rocky and difficult to traverse, would be improved for easier travel (that portion of segment H west of the junction with segment A/B) . Roads to remain open that are steep would have maintenance performed including some smoothing of the surface to reduce rutting and gullying, and development of waterbars to control surface water. There would be no fence construction to block access to closed roads.

Off road vehicle use would be limited to designated roads and would be signed as such. This would prevent legal establishment of new roads adjacent to, or near, the road segments closed with implementation of this project. In addition, signs would be posted informing the public of seasonal use restrictions due to crucial deer winter range.

Alternative A

Short segments of road would be closed in the same manner as the preferred alternative, and three access routes would remain open through Sanford and Deer subwatersheds (see Table 1 and Map B). Only the portion of segment H to the east of segment A/B would have maintenance performed, including some smoothing of the surface to reduce rutting and gullying, and development of waterbars to control surface water. The remaining portion of segment H to the west would not have maintenance performed, or improved, to allow for easier travel. Most of the roads remaining open that traverse the center of the subwatersheds would have maintenance performed to reduce rutting and provide for control of surface water.

As in the proposed action, off road vehicle use would be limited to designated roads, and signs would be posted informing the public of seasonal use restrictions due to crucial deer winter range.

III. Description of the Existing Environment

The Sanford and Deer Cr. subwatersheds are located approximately 20 miles southeast of Prineville, OR, on the south side of Prineville Reservoir (see map). The area is characterized by steeply dissected terrain in the central portion of the project area, and flat tablelands that comprise the headwaters of Sanford and Deer Creeks within the south portion of the project area. Sanford Cr. and Deer Cr. flow to the northwest and drain directly into Prineville Reservoir. Elevations within the project area range from 3,400 ft. near Prineville Reservoir to 4,400 feet up on the tablelands near Windy Point. Precipitation ranges from 9-11 inches, most of which falls as snow from November through April. Additional amounts of precipitation are derived from severe summer thunderstorms during the months of July, August and September.

Soils and Vegetation

There are three major soil types within the project area. In the steeply dissected portion of Sanford Cr. and to the east is the Choptie-Madeline association. These soils are a loam and sandy loam. Both are shallow and well drained with slow to moderate permeability, a moderate erosion hazard, and medium runoff.

In the steeply dissected portion of Deer Cr., and from Sanford Cr. west, is the Stukel-Lorella association, a loam and stony sandy loam. These soils are shallow and well drained with slow to moderate permeability, rapid runoff, and a moderate erosion hazard.

The upper tablelands are comprised of the Ratto stony sandy loam that are shallow and well drained. Permeability is slow, runoff is slow, and hazard of erosion by water is slight.

Vegetation within the project area is composed of mixed grassland, shrub, and woodlands, including western juniper, pine, aspen, bluebunch wheatgrass, Idaho fescue, Sandberg bluegrass, Thurber needlegrass, big sagebrush, and antelope bitterbrush. Much of the area is dominated by western juniper as a result of historic overgrazing, climate change, an aggressive fire prevention policy, and eradication of native americans who regularly burned the surrounding area. As a result of frequent, large-scale fires, the landscape was historically open in a shrub/grassland condition as compared to the current juniper woodland condition. Much of the area dominated by heavy stands of young juniper have reduced shrub and grass plant cover and increased bare ground, causing extensive overland flow, rilling, and surface erosion. Where juniper has been cut or burned in the past, the area has returned to an open shrub/grassland condition with vigorous stands of bitterbrush. Knapweed is present in scattered populations.

Wildlife

The project area is identified as crucial mule deer winter range by the Oregon Department of Fish and Wildlife (ODFW), who estimates the wintering population at approximately 300-500 deer. The resident deer population is estimated at approximately 300 head. Present habitat conditions for wintering mule deer are considered fair to good. Elk inhabit the area in fairly large numbers, particularly in the upper Sanford Cr. area and on Windy Flat. Poaching of big game is a problem within in the area in part due to the road density and limited restrictions on vehicle travel within the area.

Fisheries, Riparian, and Water Quality

A large portion of the lands in Sanford Cr. were acquired in the late 1980s at which time changes in livestock management took place, as well as initiation of improvement projects aimed at improving watershed health. Recovery of riparian vegetation and stream channel conditions has been slow primarily because of poor upland conditions. An extensive road network, combined with juniper dominated uplands and riparian areas, has caused expansive areas of bare ground, surface erosion, rilling, and an expansion of the drainage network. These

conditions all contribute to flashy peak flows within the stream channels. This is particularly evident during intense, summer thunderstorms. The flows within the channels are severely erosive, causing widespread scour, erosion and deposition.

A AProper Functioning Condition@ stream channel assessment performed in 1994 found Sanford Cr. to be rated Aat risk@ with a downward trend. Today, many segments of Sanford Cr. would likely be rated as Anon-functional@. Deer Cr. was rated Aat-risk@ with an upward trend. It is questionable if Deer Cr. would be rated with an upward trend today.

Fish species within Sanford Cr. and Deer Cr. include redband trout, dace, squawfish, and possibly bass near their confluence with the reservoir. Aquatic habitat is fair to poor, with little riparian vegetation, poor bank stability, low pool frequency and volume, and little complexity.

Although stream temperature in Sanford and Deer Creeks have not been continuously monitored, it is likely that they would be water quality limited for temperature due to the lack of riparian vegetation, wide and shallow stream channels, and rapid runoff of water resulting in low flows. In addition, sediment is probably a concern due to erosion of upland soils and in-channel erosion from high peak flows.

Livestock Grazing Management

There are currently three grazing allotments within the project area, Deer Cr., Salt Cr., and Sanford Cr. Allotments. These allotments have the same management goals as outlined in the Brothers/La Pine Resource Management Plan (1989). Those goals include: improve ecological condition, stabilize or improve watershed condition, improve riparian habitat, and maintain or improve winter range for mule deer and/or antelope. Grazing permittees have reported difficulties in keeping gates shut on several non-system roads in the project area. This has allowed livestock to escape resulting in unplanned grazing, as well as additional management costs for both the BLM and the permittees.

The following table summarizes the land ownership and grazing allocation in animal unit months (AUMs) for each allotment:

Table 2. Ownership and Grazing Allocation

	Sanford Cr. Allotment	Deer Cr. Allotment	Salt Cr. Allotment
Ownership (acres)			
BLM Administered	4,926 acres	2,991 acres	12,550
Private	370 acres	380 acres	4,130
Bureau of Rec Administered	80 acres	210 acres	390
AUMs	375 AUMs	171 AUMs	1,364

Threatened and Endangered Plants and Animals
Bald eagles winter in the Prineville Reservoir area. There is an active bald eagle nest one mile east of the project area. The project area has potential for use as occasional foraging habitat.

The project is located within a designated Canada lynx corridor. The project area has not been surveyed. In 1998 and 1999 the Deschutes National Forest surveyed for lynx. Controversial data indicated lynx detection in 1998 and no lynx detections in 1999. Two lynx sighting were reported in 1999, 24 miles east of the project area.

Burrowing owls and pygmy rabbits also have potential habitat within the project area. No surveys have been completed for either species. Pygmy rabbit habitat are those dominated by sagebrush. High density juniper stands have lowered potential habitat for burrowing owls.

Recreation
Hunting, off-highway vehicle use (OHV), birding, and hiking are the primary recreation activities on public lands within the project area. These activities generally occur during the summer and fall months of the year and are generally dispersed except during deer season in the fall.

Cultural Resources
Cultural resources are known to exist in the project area and, based on past inventory, are expected to occur. No paleontological resources are known to exist within the project area.

The BLM knows of no Native American religious sites or traditional use areas within the proposed project area.

IV. Impacts

Soil and Vegetation

No-Action

Gullies and surface erosion on approximately 13 miles of untreated, existing roads would result in continued loss of soils from upland sites. Limbs from juniper trees would not be cut to serve as roughness and organic debris on the obliterated sections of closed roads. Shrubs, grasses, and forbs would not be impacted due to fence construction. Livestock escape and unplanned grazing would continue to occur. Knapweed and other noxious weeds would expand into the areas adjacent to unclosed vehicle trails and roads.

Proposed Action

Closure and rehabilitation of approximately six miles of road and maintenance of seven miles of road would reduce erosion and loss of soil from upland sites. Establishment of native vegetation and reduction in soil compaction would occur on the six miles of closed roads. Some shrubs, grasses, and forbs immediately adjacent to the newly constructed fenceline would be crushed or destroyed. The potential total area of impacted vegetation due to fence construction would be approximately 1/4 acre in size.

Construction of approximately 0.25 miles of new road would cause compaction of soils and loss of vegetation within the roadbed. However, net loss of soils would be less with the new road segment as compared with the currently existing road due to the erosiveness of the currently existing road.

Risks for noxious weed expansion would be reduced, as would livestock escape and unplanned grazing.

Alternative A

Closure and rehabilitation of approximately one mile of road and maintenance of approximately four miles of road would result in some reduction in upland soil loss. Establishment of native vegetation and reduction in soil compaction would occur on the one mile of closed roads. Associated impacts from fence construction, such as crushing shrubs, grasses, and forbs, would not occur since there would be no fence construction with implementation of alternative A.

Wildlife

No-Action

Harassment of wildlife would continue and escape routes for big game would remain limited due to the extensive road network. Wintering habitat would be compromised and poaching would

continue to be a problem with the currently existing road network.

Proposed Action
Escape routes for big game would increase greatly and harassment of wildlife would be reduced with limited road access. Posting signs informing the public of seasonal restrictions for mule deer winter range would provide more secluded habitat that would result in less stress and energy use by the animals. Poaching would be made more difficult due to limited access.

Construction of a 3-wire, high tensile fence would impede wildlife movement slightly. The barbless, 3 strand design would be constructed according to ODFW specifications to allow for movement through, over, and under the fence.

Alternative A
Escape routes and harassment of wildlife would remain about the same as the No-Action Alternative. Keeping the three routes open through the project area would allow access for continued poaching. As in the proposed action, signs would be posted informing the public of seasonal restrictions for mule deer winter range

Fisheries, Riparian, and Water Quality
No Action
Gullies and surface erosion on approximately 13 miles of untreated, existing road would continue to directly supply sediment to Sanford Cr. and Deer Cr. The existing drainage network would continue to act as channels during runnoff events, causing high peak flows and scouring of the riparian vegetation, stream channel banks, and channel bottom. Aquatic habitat would remain in fair to poor condition or potentially improve slowly if riparian vegetation became established during a period of more drought-like conditions. Stream temperatures would remain warm due to lack of riparian vegetation, wide, shallow stream channels, and low flows due to rapid runoff. Sediment would continue to be introduced into the channel from the uplands, and in-channel sources would become mobile due to high peak flows.

Proposed Action
Closure of approximately six miles of road (26% of the road network) and rehabilitation of seven miles of road (28% of the road network) would reduce erosion and the sediment supply to Sanford Cr. and Deer Cr. The miles of road channeling water to the streams would be reduced by approximately 54%, thereby reducing peak flows caused by the road network. A reduction in peak flows would allow riparian vegetation an opportunity to become established, and would reduce the potential for established riparian vegetation from being torn from stream channel banks and the floodplain. Establishment of riparian vegetation on stream channel banks and floodplains would result in further reduction in stream flow velocities and subsequent improvements in stream channel conditions and aquatic habitat. Improved aquatic habitat would likely result in healthier and more redband trout, dace, and squawfish. Improvements in stream

temperature and sediment introduction to the channels may occur with reduced peak flows and establishment of riparian vegetation.

Alternative A
Impacts would be similar to the No-Action Alternative, with only a slight reduction in erosion and sediment supply to Sanford and Deer Creeks. Closure of approximately 1.04 miles of road (5% of the road network) and rehabilitation of four miles of road (15% of the road network) would reduce some erosion and the sediment supply to Sanford Cr. and Deer Cr. The miles of road channeling water to the streams would be reduced by approximately 20%, thereby causing a small reduction in peak flows as a result of the road network.

Threatened and Endangered Plants and Animals
No-Action
There would be no effect to bald eagles, Canada lynx, burrowing owls, or pygmy rabbits.

Proposed Action
Road closures would reduce the amount of recreational activities and impacts to threatened or sensitive species within the project area. In addition, a reduction in total road density would benefit Canada lynx, and would not reduce travel cover or foraging habitat.

A determination of Amay effect-not likely to adversely affect@ was made for bald eagles and Canada lynx. For bald eagles, this determination was reached for the following reasons: 1.) the planning area is greater than **2** mile line of site from the known bald eagle nest and activities would occur prior to next breeding season, 2.) no known winter roosts exist in the project area, 3.) individuals that use the planning area for incidental foraging will not be effected by the activities, 4.) seasonal operational restrictions will be in place for winter range areas between Dec. 1 and May 1, and 5.) project design elements are consistent with all Criteria I and II in the 2000 Programmatic BA.

For Canada lynx, the determination of Amay effect-not likely to adversely affect@ was reached for the following reasons: 1.) the 1/4 mile of construction would not be located on a ridge or saddle, 2.) project activities would occur within the Key Linkage Area but would be a potential disruption on an area less than 1/4 mile wide at any one time. The KLA is 5 miles wide, leaving sufficient area for dispersing lynx to navigate around any possible disturbance, and 3.) project design elements are consistent with all Criteria I and II in the 2000 Programmatic BA.

A determination of Amay impact individuals or habitat@ was made for burrowing owls and pygmy rabbits. This determination was made for burrowing owls for the following reasons: 1.) The 1/4 mile of road construction could impact a burrow, but the potential is very small, 2.) closing other roads would increase the amount of vegetative cover and reduce recreational impacts to any individuals using the project area, and 3.) if the 1/4 mile of road construction

impacted a burrow, the effect would be localized and limited to individuals. The determination for pygmy rabbits was reached because road construction activities could remove some habitat. However, the effects would be minimal and would not reduce an individuals ability to utilize the project area.

Alternative A
The effects to threatened or sensitive species would be similar to those outlined in the Aproposed action@ above.

Recreation
No-Action
All roads would remain open within the area, allowing recreationists to travel via the three main routes. Off road vehicle use would not be limited to designated roads and would not be signed as such. Hunters would continue to access much of the area by vehicle. The relative ease of access into the area would result in a higher density of hunters and would not be conducive to those who desire more Aprimitive@ experiences. Hunters who are not capable of walking, or do not desire to walk, would continue to have access by road. Roads would not be signed stating that travel is limited to designated roads. Therefore, off-road vehicle travel would likely continue. Hikers and birders would continue to have access to the whole area, but would potentially be disrupted by the sound and sights of vehicles in the area.

Proposed Action
Access through the project area by vehicle would be limited to the one designated route. Travel off the designated route would be non-motorized, such as by horseback or on foot. Vehicle use off of designated roads would not be allowed. Hunters who are capable of, or desire, a more primitive experience would benefit most from this alternative. Hikers, birders, and hunters would enjoy more solitude, but would also have limited access by vehicle to the central and northern sections of the area.

Alternative A
Except for three short segments to be closed, which together total one mile in length, impacts to recreationists would be about the same as for the No-Action.

Livestock Grazing
No-Action
Access by permittees would remain available on the three main access routes and by off-road vehicles to manage livestock, and to implement and maintain improvement projects. Escape of livestock due to gates being left open or cut fences would continue in grazing management regimes being compromised.

Proposed Action

Access by permittees would be limited to the one route through the area to manage livestock, and to implement and maintain improvement projects. Escape of livestock due to gates being left open or cut fences would be reduced and would likely occur only along the one route as compared to the three routes. Installation last year of two new cattleguards along the route designated to remain open would also reduce the potential of livestock escape from gates being left open or cut fences. This would result in grazing management regimes being followed more successfully.

Cultural Resources

No-Action

No impact would occur to cultural resources with implementation of the No-Action alternative.

Proposed Action

Although there are many cultural resources in the vicinity of the project area, none will be directly impacted by the proposed project where activities are restricted within the existing disturbed areas of roads being rehabilitated or obliterated. Previous inventories have revealed cultural sites in the project area, but none will be impacted by the proposed actions as described (see Cultural Resource Waiver 5600W6). Waterbars would not extend beyond the existing disturbed areas and attachments used on heavy equipment to obliterate and rehabilitate roads would be raised when operating on undisturbed areas. If cultural or paleontological resources are inadvertently discovered as a result of disturbance, work would stop and the authorized office would be contacted immediately.

Alternative A

Impacts to Cultural Resources would be similar to the Proposed Action with the exception of impacts associated with construction of 0.25 miles of new road.

Mitigation Measures and Residual Impacts

All known mitigating measures and all remaining impacts after mitigation have been addressed previously in this document.

Cumulative Impacts

Cumulative impacts with the Ano-action@ alternative would result in additional soil compaction and loss of vegetation as new roads are developed in the future with the area Aopen@ to off-road vehicles. Past juniper management projects, together with implementation of the proposed action would continue to reduce surface erosion, soil loss, and peak flows. These combined actions result in improved upland vegetative conditions and riparian and stream channel conditions. Other improvement projects aimed at riparian vegetative recovery, such as excluding Square House Spring from livestock grazing have been implemented to further the goals and objectives as outlined with this project proposal.

Three-quarters of a mile of new fence in addition to already existing pasture and allotment fences would create more obstacles which wildlife would have to negotiate.

V. No Impact Items

The following critical elements were considered, but will not be addressed because they would either not be affected or do not exist in the project area:

1. Agricultural Lands (prime or unique)
2. Air Quality
3. Areas of Critical Environmental Concern
4. Environmental Justice
5. Floodplains
6. Invasive, Non-native Species
7. Wastes (hazardous or solid)
8. Wild and Scenic Rivers
9. Wilderness (including Wilderness Study Areas)

VI. Consultation and Coordination

Persons and Agencies Consulted

Brian Ferry, Wildlife Biologist	Oregon Department of Fish and Wildlife
Steve Fritts	Oregon Hunters Assoc., Prineville
Mike Gangstead	Oregon Hunters Assoc., Redmond
Chuck McGrath	Permittee

Preparers (BLM)

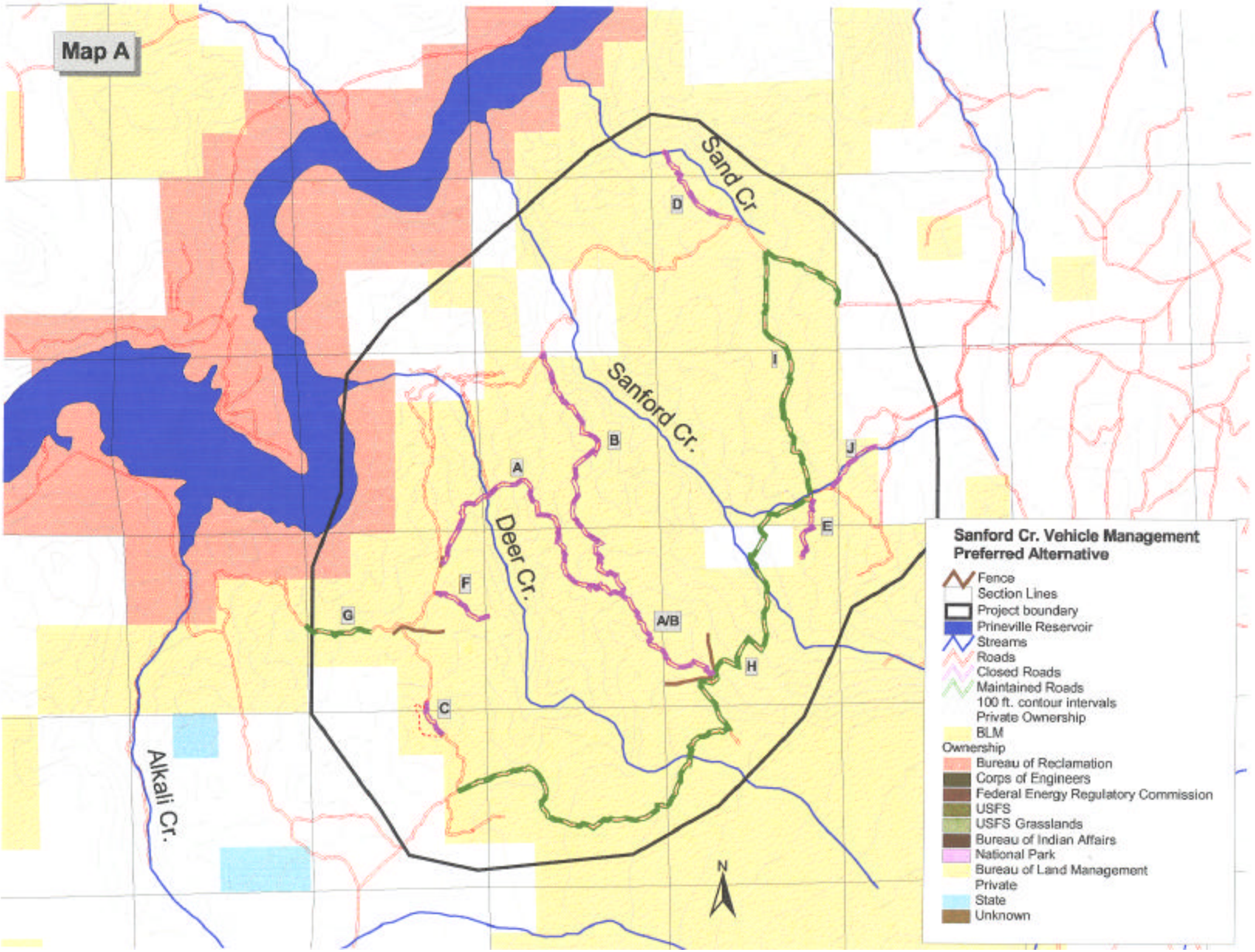
Michelle McSwain	Hydrologist
John Swanson	Range Management Specialist
Berry Phelps	Recreation Planner
Monte Kuk	Wildlife Biologist
John Zancanella	Archaeologist
Ron Halvorson	Botanist

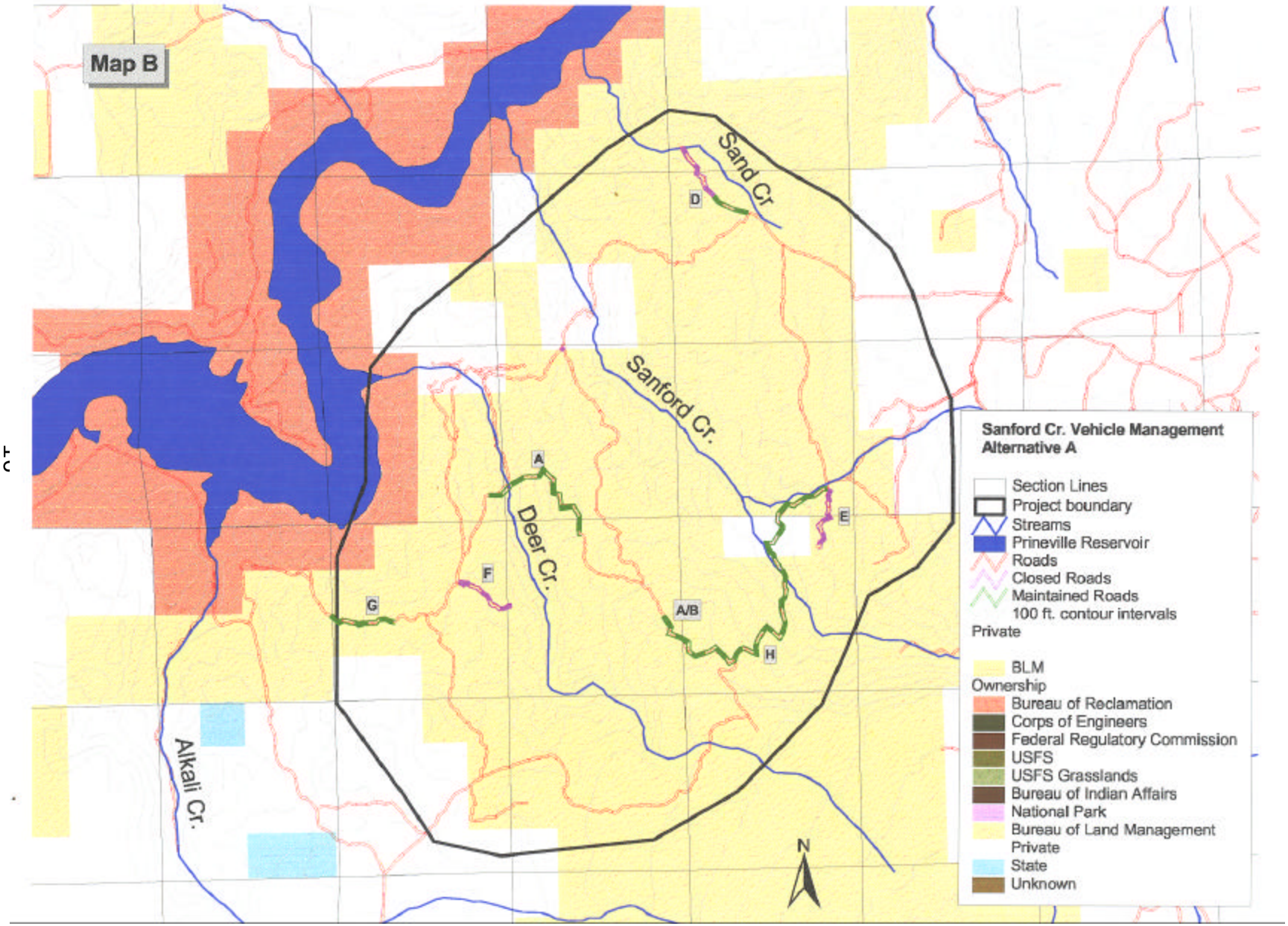
NEPA requirements met:

_/s/_ JC Hanf (Acting for)_____ ___09-24-00__

Marci Todd, Asst. Field Office Manager Date

Deschutes Environmental Coordinator


Map A
Sand Cr
Sanford Cr.
Deer Cr.
Alkali Cr.
A
B
C
D
E
F
G
H
I
J
A/B
N
Sanford Cr. Vehicle Management
Preferred Alternative
Fence
Section Lines
Project boundary
Prineville Reservoir
Streams
Roads
Closed Roads
Maintained Roads
100 ft. contour intervals
Private Ownership
BLM
Ownership
Bureau of Reclamation
Corps of Engineers
Federal Energy Regulatory Commission
USFS
USFS Grasslands
Bureau of Indian Affairs
National Park
Bureau of Land Management
Private
State
Unknown


Map B
Sand Cr
Sanford Cr.
Deer Cr.
Alkali Cr.
A
A/B
D
E
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N
Sanford Cr. Vehicle Management
Alternative A
Section Lines
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100 ft. contour intervals
Private
BLM
Ownership
Bureau of Reclamation
Corps of Engineers
Federal Regulatory Commission
USFS
USFS Grasslands
Bureau of Indian Affairs
National Park
Bureau of Land Management
Private
State
Unknown

Finding of No Significant Impact

Sanford Cr. Vehicle Mangement and Road Rehabilitation
Environmental Assessment (EA) #OR-056-00-095, Project #73-7176
Prineville District Bureau of Land Management, Deschutes Resource Area

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Summary of Proposed Action and Alternatives

An interdisciplinary team of resource specialists at the Prineville District BLM has analyzed a proposal to close approximately six miles of road, improve and maintain approximately seven miles of road, and construct 0.25 miles of new road. In addition, information kiosks would be constructed and located at key portals to the area to inform the public of designated road use and seasonal closures for critical deer winter range. A second alternative was considered which would close one mile of road and improve four miles of road. A no-action alternative was also considered.

FONSI Determination

Based on the information contained in the EA, and other available information, it is my determination that none of the alternatives would constitute a major federal action significantly affecting the quality of the human environment. My reasons for this determination are:

- There would be no significant irreversible or irretrievable commitment of resources.
- There would be no significant, adverse impacts to water quality or stream channel morphology.
- There were no identified impacts or issues related to public health or safety.
- Cultural resources would not be expected to be impacted.
- There would be no impact on Threatened, Endangered or Sensitive plants or animals within the affected area.
- Wetlands and floodplains would not be impacted. In fact, floodplain function would be improved.
- The proposed action is not part of any other action having potential for cumulatively significant impacts to the important or relevant resource values for the area involved.
- There area is not within a Wild and Scenic River boundary or Wilderness Study Area, so no impacts to those resources would occur.

An Environmental Impact Statement is therefore unnecessary and will not be prepared. The proposed action and alternatives are consistent with the existing Brothers/La Pine Resource Management Plan.

Approved: __/s/ JC Hanf (Acting for)_____ _____09-22-00_____
Robert Towne Date
Acting Field Manager, Deschutes Resource Area